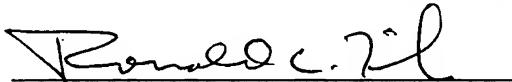## ABSTRACT

A process for grouping cable modems by type/modulation profile and/or throughput ability into different logical groups. Each logical group is commanded to transmit on an upstream which has a burst profile set to effectively use the

5   throughput ability of the cable modem. Some species monitor initial ranging bursts and separate CMs with inadequate power onto a lower throughput upstream. Some species monitor post registration data transmissions for various factors and subdivide groups into subgroups of overperformers and underperformers.